Claim Objections

1. **Claims 4-13, 17-26, and 29-31** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 14, 27 and 32** rejected under 35 U.S.C. 102(b) as being anticipated by Bernhardt et al. (US Patent Number 5,710,975).

Regarding **Claim 1, 14 and 27** Bernhardt et al. discloses a communications network comprising:

a first node that comprises at least one transceiver and is configured to***(see figure 1, section 20, selective call transceiver):***

observe one or more conditions in at least one of the communications network or the first node***(see col. 1-2, lines 66-2, the selective call transceiver has unique address for receiving messages(condition) sent by the transmitter which reads on (monitoring communication in network),***

select a sleep mode (power saving interval) of a plurality of sleep modes based on the observed one or more conditions, each sleep mode of the plurality of sleep modes being associated with a different powering down procedure ***(see col. 3, lines 12-29, the power saving***

interval is selected by the selective call transceiver, the power saving interval is variable (plurality of sleep modes) depending on conditions, the different procedures being time duration(latency is the amount of time that lapse between the receipt of a message by the system), the procedures to power save for a time interval), and

power down the at least one transceiver for the sleep duration and according to the powering down procedure associated with the selected sleep mode; and

a plurality of neighboring nodes***(see figure 4, section 78, transceiver enter into a power saving state, for the selected power saving interval,).***

Regarding **Claim 27** Bernhardt et al. discloses a computer-readable medium including a plurality of instructions that, when executed by at least one processor, causes the at least one processor to perform a method for conserving power in a node of a communications network, the node including at least one transceiver, the method comprising:

monitoring one or more conditions in the communications network***(see col. 1-2, lines 66-2, the selective call transceiver has unique address for receiving messages sent by the transmitter (monitoring communication in network)***;

selecting one of a plurality of sleep modes(power saving interval) based on the monitoring, each sleep mode of being associated with a different powering down procedure and a sleep duration***(see col. 3, lines 12-17, the power saving interval is selected by the selective call transceiver, the power saving interval is variable(plurality) depending on conditions)***; and

powering down the at least one transceiver for the sleep duration and in accordance with the powering down procedure associated with the selected sleep mode***(see figure 4, section 78, transceiver enter into a power saving state, for the selected power saving interval)***.

Regarding **Claim 32** Bernhardt et al. discloses a system for conserving power, the system comprising:

means for monitoring one or more conditions in a node of communications network***(see figure 1, section 20, selective call transceiver)***;

means for selecting a sleep mode ***(see figure 4, section 20, transceiver, see col. 5, lines 21-28, the user control select variable power saving interval)*** see of a plurality of sleep modes **(power saving intervals)** based on the monitored one or more conditions, each sleep mode of the plurality of sleep modes being associated with a different powering down procedure and a sleep duration***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (period of time), see also col. 3, lines 12-29, the power saving interval is selected by the selective call transceiver, the power saving interval is variable (plurality of sleep modes) depending on conditions, the different procedures being time duration(latency is the amount of time that lapse between the receipt of a message by the system), the procedures to power save for a time interval))***; and

means for powering down***(see figure 3, section 48, CPU, see col. 5, lines 56-57, the CPU causes all the functional blocks to be turned off),*** at least one device in the node according to the powering down procedure associated with the selected sleep mode***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 2 and 15** rejected under 35 U.S.C. 103(a) as being unpatentable over Bernhardt et al in view of Redi et al. (US Patent Application Publication 2002/0071395).

Regarding **Claim 2 and 15** Bernhardt et al. discloses everything as applied above (*see claim 1 and 14*). In addition the communications network includes:

amount of time since the first node has powered down (see col. 2, lines 34-42, periodically the power is removed from the transceiver based on a power saving interval) .

However Bernhardt et al. fail to specifically point out wherein the one or more conditions include traffic volume, an amount of power remaining in a power supply associated with the first node as claimed.

Redi et al. discloses wherein the one or more conditions include traffic volume***(see paragraph[0069], line 18-22] monitoring condition is based on the amount of traffic transmitted from on node to another (traffic volume)*** , an amount of power remaining in a power supply associated with the first node as claimed***(see figure 6, section S4, network use the energy information(power supply)see paragraph [0064]).***

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with the condition of traffic

volume and power remaining as a condition because this would further allow message receivers to attain greatly improved battery life (Bernhardt et al. see col. 1, line 34-35)

5. **Claims 3, 16 and 28** rejected under 35 U.S.C. 103(a) as being unpatentable over Bernhardt et al in view of Lui (US Patent Publication 20050009578).

Regarding **Claim 3, 16, and 28** Bernhardt et al. discloses everything as applied above (*see claim 1 and 14*). In addition the communications network includes:

wherein the plurality of sleep modes includes at least four sleep modes, and

in response to selecting a first sleep mode of the at least four sleep modes, the first node, when powering down, is configured to ***(see figure 4, section 74 and 76, transceiver get an ACK. from the system after selecting powers saving mode):***

set a sleep timer to a first period of time***(see col. 5, lines 50-54, the power saving interval is set, using the allowed time interval)***

and power down the at least one transceiver for the first period of time ***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time).***

However Bernhardt et al. fails to specifically point out buffer outgoing packets as claimed.

Lui teaches buffer outgoing packets (see figure 14, [0138], lines 4-10, PS station is instructed to enter sleep mode, PS data is buffered until next beacon)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Bernhardt et al. invention with Lui invention because Lui invention is an improved protocol addressing the problems associated with QoS as well as non-

QoS traffic flows and minimizing total power consumption across all power saving stations (see Lui , [0024], lines 1-4).

Regarding **Claim 28** Bernhardt et al. discloses everything as applied above (*see claim 27*). In addition the computer-readable medium includes:

wherein the plurality of sleep modes includes at least four sleep modes, and

in response to selecting a first sleep mode of the at least four sleep modes, the powering down includes***(see figure 4, section 74 and 76, transceiver get an ACK. from the system after selecting powers saving mode)***:

setting a sleep timer to a first period of time***(see col. 5, lines 50-54, the power saving interval is set, using the allowed time interval)***,

powering down the at least one transceiver for the first period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

However Bernhardt et al. fails to specifically point out buffer outgoing packets as claimed.

Lui teaches buffer outgoing packets (see figure 14, [0138], lines 4-10, PS station is instructed to enter sleep mode, PS data is buffered until next beacon)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Bernhardt et al. invention with Lui invention because Lui invention is an improved protocol addressing the problems associated with QoS as well as non-

QoS traffic flows and minimizing total power consumption across all power saving stations (see Lui , [0024], lines 1-4).

Allowable Subject Matter

6. Claim 33 allowed.

Response to Arguments

Applicant's arguments filed March 12, 2008 have been fully considered but they are not persuasive.

In the remarks on pgs. 13 and 15 of the amendment, the applicant contends that Bernhardt et al. does not teach or suggest "a first node configured to select a sleep mode of a plurality of sleep modes based on one or more observed conditions, where each sleep mode of the plurality of sleep modes is associated with a different powering down procedure and a sleep duration,

Examiner respectfully disagrees Bernhardt et al. teaches the power saving interval is selected by the selective call transceiver (first node), the power saving interval is variable (plurality of sleep modes) depending on conditions, the different procedures being time duration (latency is the amount of time that lapse between the receipt of a message by the system), the procedures to power save for a time interval. The length of latency reads on the claim language of different powering down procedures.

In the remarks on pgs. 14 of the amendment, the applicant contends that Bernhardt et al. does not teach or suggest "short power saving interval and the longer power saving interval are associated with a different procedure".

Examiner respectfully disagrees Bernhardt et al. teaches the differences being the latency of the amount of time lapse between the receipt of a message by the system, which make the procedures different.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MON CHERI S. DAVENPORT whose telephone number is (571)270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mon Cheri S Davenport/
Examiner, Art Unit 2616
June 2, 2008

/Frank Duong/
Primary Examiner, Art Unit 2616